

ABSTRACT

A catalyst composition, and olefin polymerization process using same, formed from a mixture of a non-aluminoxane aluminum compound, an inorganic oxide and a transition metal bidentate or tridentate complex in certain prescribed proportions. The composition can be formed in a single step or in-situ in the polymerization reaction zone. The resultant catalyst has high activity and is capable of producing high molecular weight olefin products without reactor fouling.